BRUHATH BANGALORE MAHANAGARA PALIKE

YALAHANKA ELECTRICAL DIVISION

E MEASUREMENT BOOK

Name of work:- - Providing Energy efficient LED Street Lights and control wires around Kempegowda Ward No 01.

BRUHATH BANGALORE MAHANAGARA PALIKE

Yalahanka ELECTRICAL DIVISION

PRE MEASUREMENT BOOK

Name of work:-Providing Energy efficient LED Street Lights and control wires around Kempegowda Ward No 01.

Name of Contractror of nature of Agency:- Sri.VinayKumar M;M/s Vinay Enterprises

Job Code No:- 001-21-000007

Ref no and Date of commencement of work:-:-BBMP/EE/YNK.D/EPMT-5/W.O/000078/2021-22 Date 22/12/2021

Measurement Book No: 2575 **Page No:** 257415 TO 117

Bill NO :- 1st & Final Bill

Sl. No.	Description of item	Unit	Present Measurements		
			Qty	Tender Full Rate	Cost
1	Supply of LED Streetlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti glare clear diffuser with Injection moulded polycarbonate material, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%, maximum light intensity should be between 60 degrees to 70 degrees. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains, Surge Protection- Min 5KV along with Over voltage/ Overload, short circuit/ miss-wiring protection. Compatible for pole mouting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with W System Power consumption. LED Efficiency>130lm/w, nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 2 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/ Lumileds/Osram make LED Source.LED Streetlight 120 Watts	Nos	188	8280.00	1556640.00
1	CE/01/TC/BL/01/54/5	SHIVANAHALLI				
2	CE/01/TC/BL/01/00/56/S/387	SHIVANAHALLI				
3	CE/01/TC/BL/01/00/53/S/387	SHIVANAHALLI				
4	CE/01/TC/BL/01/00/53/S/387	SHIVANAHALLI				
5	CE/01/TC/RMR/00/76/0/82	NEHRU NAGAR				
6	CE/01/TC/SL/04/00/09/0/114	NEHRU NAGAR				
7	CE/01/TC/SL/01/03/06/0	SURABHI LAYOUT				
8	CE/01/TC/SL/00/03/05/1	SURABHI LAYOUT				
9	CE/01/TC/SL/00/03/04/0/149	SURABHI LAYOUT				
10	CE/01/WL/51/02/03/40/SB	SURABHI LAYOUT				
11	CE/01/TC/SL/00/04/06/0/145	SURABHI LAYOUT				
12	Lat-13.091391, Long-77.599088	SURABHI LAYOUT				
13	CE/01/TC51/SL/00/03/16/0/151	SURABHI LAYOUT				
14	CE/01/TC51/SL/00/03/16/0/151	SURABHI LAYOUT				

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15	CE/01/TC/SL/01/02/03/0	SURABHI LAYOUT					
16	CE/01/TC51/SL/00/03/16/0/151	SURABHI LAYOUT					
17	CE/01/TC/VMR/00/13/0	SURABHI LAYOUT					
18	CE/01/TC/V/MR/00/11/0/102	SURABHI LAYOUT					
19	CE/01/TC/VMR/00/06/5/287	SURABHI LAYOUT					
20	VE/01/SL/00/03B/TC51/03/S	RAMAKRISHNA					
21	VE/01/SL/00/03B/TC51/04/S	RAMAKRISHNA					
22	VE/01/SL/00/03B/TC51/05/S	RAMAKRISHNA					
23	VE/01/SL/00/03B/TC51/06/S	RAMAKRISHNA					
24	VE/01/BL/00/05/TC316/03/S	SHIVANALLI					
25	VE/01/BL/00/05/TC316/01/S	SHIVANALLI					
26	VE/01/BL/01/00/TC316/20/S	LAYOUT OPP SRI					
27	VE/01/BL/01/00/TC316/21/S	LAYOUT OPP SRI					
28	Lat-13.102794, Long- 77.60928	MARUTHI NAGAR					
29	Lat-13.110381, Long- 77.6137	MARUTHI NAGAR					
30	CE/01/TC/PL/100/01/04/S/1307	MARUTHI NAGAR					
31	CE/01/TC/PL/00/01/01/S	MARUTHI NAGAR					
32	Lat- 13.110287, Long- 77.61372	MARUTHI NAGAR					
33	Lat- 13.110287, Long 77.61372	MARUTHI NAGAR					
34	Lat- 13.109403, Long- 77.613371	GANDHI NAGAR					
35	CE/01/TC221/Y/NS/00/04/0/4	GANDHI NAGAR					
36	CE/01/TC221/Y/NS/00/04/0/29	GANDHI NAGAR					
37	CE/01/TC221/Y/NS/00/04/0/29	GANDHI NAGAR					
38	Lat- 13.09603, Long- 77.599459	SURABHI LAYOUT					
39	CE/01/TC51/SL/00/03/0/150	SURABHI LAYOUT					
40	CE/01/TC/RSR/00/15/S/212	SURABHI LAYOUT					
41	CE/01/TC/RSR/00/13/S/212	SURABHI LAYOUT					
42	CE/01/TC221/Y/NS/00/20/LK/200	OLD TOWN					
43	Lat- 13.101215, Long- 77.607523	OLD TOWN					
44	Lat- 13.100945, Long- 77.607523	OLD TOWN					
45	CE/01/TC214/MN/KL/00/28	KURLAPPA LAYOUT					
46	CE/01/TC214/MN/KL/00/27/0	KURLAPPA LAYOUT					
47	CE/01/TC58/KL/01/00/01/1S/585	KURLAPPA LAYOUT					
48	CE/01/TC58/KL/01/00/04/0	KURLAPPA LAYOUT					
49	CE/01/TC58/KL/01/00/07/0	KURLAPPA LAYOUT					
50	CE/01/TC/KL/00/08/02/S/599	KURLAPPA LAYOUT					
51	CE/01/TC58/KL/00/09/03/S/607	KURLAPPA LAYOUT					
52	CE/01/TC58/KL/01/00/15/LED/455	KURLAPPA LAYOUT					
53	Lat-13.102132, Long- 77.604913	MARUTHI NAGAR					
54	Lat- 13.10099, Long- 77.595721	OLD TOWN					
55	CE/01/TC221/Y/05/00/04/LED/209	OLD TOWN					
56	CE/01/TC221/Y/05/00/04/LED/209	OLD TOWN					
57	CE/01/TC/SM/00/01/02/S	OLD TOWN					
58	CE/01/TC/SL/04/00/03/0	SURABHI LAYOUT					
59	CE/01/TC/SL/04/00/15/0/115	SURABHI LAYOUT					
60	CE/01/TC/RSR/00/69/0/80						
61	CE/01/TC/RSR/00/03/07/S/530						
62	CE/01/TC/RSR/00/71/0/81						
63	01/N4/51/02/05/55/4H						

64	Lat- 13.012963, Long- 77.510336	VENKATALA				
65	Lat- 13.012963, Long- 77.510336	VENKATALA				
66	Lat-13.012963, Long- 77.510336	VENKATALA				
67	Lat- 13.012963, Long- 77.510336	VENKATALA				
68	Lat-13.012963, Long- 77.510336	VENKATALA				
69	CE/01/213/03/09/00/01	VENKATALA				
70	Lat- 13.10396719, Long- 77.683694	VENKATALA				
71	CE/01/TC59/MN/00/02/11/LED/774	MARUTHI NAGAR				
72	CE/01/TC59/MN/02/00/08/LED/771	MARUTHI NAGAR				
73	CE/01/TC59/MN/02/00/10/LED/773	MARUTHI NAGAR				
74	Lat- 13.10459372, Long-77.60976998	MARUTHI NAGAR				
75	Lat- 13.10477256, Long-77.60973848	MARUTHI NAGAR				
76	Lat-13.012068, Long- 77.51399	MARUTHI NAGAR				
77	CE/01/TC/RSR/001/10/3/208					
78	Lat-13.09480538, Long- 77.60079556	ROAD				
79	CE/01/TC/VMR/00/20/S/299	ROAD				
80	CE/01/TC/VMR/00/119/S	ROAD				
81	CE/01/TC/VMR/00/18/S	ROAD				
82	CE/01/TC/VMR/00/17/S/298	ROAD				
83	CE/01/TC/VMR/00/17/S/299	ROAD				
84	CE/01/TC/VMR/00/17/S/294	ROAD				
85	CE/01/TC/VMR/00/105/S	ROAD				
86	CE/01/TC/VMR/00/14/S	ROAD				
87	NEWTOWN HANUMAN TEMPLE	TOWN				
88	NEWTOWN HANUMAN TEMPLE	TOWN				
89	NEWTOWN HANUMAN TEMPLE	TOWN				
90	NEWTOWN HANUMAN TEMPLE	TOWN				
91	NEWTOWN HANUMAN TEMPLE	TOWN				
92	NEWTOWN HANUMAN TEMPLE	TOWN				
93	NEWTOWN HANUMAN TEMPLE	TOWN				
94	NEWTOWN HANUMAN TEMPLE	TOWN				
95	NEWTOWN HANUMAN TEMPLE	TOWN				
96	VE/01/TC57/MN/KL/03/08/S	LAYOUT 3RD CROSS				
97	VE/01/TC57/MN/KL/03/09/S	3RD CROSS NEAR				
98	VE/01/TC57/MN/KL/03/10/0	3RD CROSS NEAR KORI				
99	VE/01/TC57/MN/KL/03/11/0	LAYOUT 3RD CROSS				
100	VE/01/TC57/MN/KL/03A/05/S	3RD CROSS NEAR OLD				
101	DHODDABALLAPURA MLA HOUSE	JUDICIAL LAYOUT				
102	GOVERNMENT COLLEGE	CIRCLE				
103	GOVERNMENT COLLEGE	CIRCLE				
104	GOVERNMENT COLLEGE	CIRCLE				
105	GOVERNMENT COLLEGE	CIRCLE				
106	GOVERNMENT COLLEGE	CIRCLE				
107	GOVERNMENT COLLEGE	CIRCLE				
108	GOVERNMENT COLLEGE	CIRCLE				
109	CE/01/TC/MN/00/02/02/5/772	CROSS				
110	CE/01/TC/MN/00/24/03/0/215	CROSS				
111	CE/01/TC/VN/00/01/15/0	BAGLUR CROSS				
112	VE/01/UN/00/06/TC/03	BAGLUR CROSS				

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113	Lat-13.123142, long- 77.610505	BAGLUR CROSS				
114	Lat- 13.122986, Long- 77.610657	BAGLUR CROSS				
115	CE/01/TC/KL/02/00/07/0/50	K H B COLONY				
116	CE/01/TC/KL/02/00/12/0/51	K H B COLONY				
117	CE/01/TC/KL/00/02/02/0	K H B COLONY				
118	CE/01/TC/KL/00/02/01/0	K H B COLONY				
119	CE/01/TC/KL/00/02/03/0	K H B COLONY				
120	Lat-13.12312435, Long-77.60862962	K H B COLONY				
121	CE/01/TC/18/K/01/00/16/0/1093	K H B COLONY				
122	Lat-13.12269842, Long-77.60871583	K H B COLONY				
123	Lat-13.12268774, Long-77.60881335	K H B COLONY				
124	CE/01/RSR/TC/17/0	K H B COLONY				
125	Lat-13.12311022, Long- 77.61091826	K H B COLONY				
126	CE/01/TC/JL/00/03/04/0	JAYAMUNI LAYOUT				
127	Lat-13.11462918, Long-77.59973907	JAYAMUNI LAYOUT				
128	Lat-13.11470038, Long- 77.59973429	JAYAMUNI LAYOUT				
129	Lat-13.11433763, Long- 77.59971862	JAYAMUNI LAYOUT				
130	CE/01/TC/00/JL/06/05/D	JAYAMUNI LAYOUT				
131	CE/01/TC/JL/00/04/02/0/151	JAYAMUNI LAYOUT				
132	CE/01/TC/JL/00/03/0/183	JAYAMUNI LAYOUT				
133	CE/01/TC/JL/01/00/12/0	JAYAMUNI LAYOUT				
134	CE/01/TC60/JL/03/00/02/0/5	JAYAMUNI LAYOUT				
135	CE/01/TC/JL/00/07/01/01	JAYAMUNI LAYOUT				
136	CE/01/TC66/JL/03/00/06/01	JAYAMUNI LAYOUT				
137	CE/01/TC/LL/02/00/02/01	JAYAMUNI LAKE				
138	CE/01/TC/LL/03/00/03/01	JAYAMUNI LAKE				
139	CE/01/TC/LL/02/01/02/01	JAYAMUNI LAKE				
140	CE/01/TC/LL/03/00/05/0/	JAYAMUNI LAKE				
141	CB/01/TC/LL/03/00/07/0/	JAYAMUNI LAKE				
142	CE/01/TC/SL/05/00/05/0	SURABHI LAYOUT				
143	Lat-13.0929147, Long-77.60258763	SURABHI LAYOUT				
144	Lat-13.09291436, Long-77.60255721	SURABHI LAYOUT				
145	Lat-13.10261909, Long- 77.6099025	SURABHI LAYOUT				
146	Lat-13.1040625, Long-77.609839	SURABHI LAYOUT				
147	CE/01/TC/SL/04/00/05/0	SURABHI LAYOUT				
148	CE/01/TC/SL/04/00/04/0	SURABHI LAYOUT				
149	CE/01/TC/SL/04/00/02/0	SURABHI LAYOUT				
150	CE/01/TC/SL/02/00/06/0	SURABHI LAYOUT				
151	CE/01/TC/SL/02/00/08/0	SURABHI LAYOUT				
152	CE/01/TC/SL/01/00/02/0	SURABHI LAYOUT				
153	CE/01/TC/SL/01/00/04/0	SURABHI LAYOUT				
154	CE/01/TC/SL/02/00/07/0	SURABHI LAYOUT				
155	CE/01/KA/00/03/03/0					
156	CE/01/KA/01/00/02/0					
157	CE/01/TC/MN/01/00/01/1	Maruthi nagar				
158	CE/01/TC/56/BBR/89/0					
159	CE/01/BBR/TC56/88/0					
160	CE/01/BBR/TC56/87/0					
161	CE/01/BBR/TC/86/0					

162	Lat-13.09983193, Long-77.59800155					
163	Lat- 13.09982066, long- 77.59796866					
164	Lat- 13.09457278, Long- 77.60269712					
165	CE/01/TC/MMR/00/04/0/					
166	CE/01/TC/Y/BMR/00/11/0					
167	Lat-13.10668267, Long-77.59376286	Maruthi nagar				
168	CE/01/TC/MN/01/00/01/0	Maruthi nagar				
169	CE/01/TC/KL/00/03/08/0	KURLAPPA LAYOUT				
170	CE/01/TC/KL/00/02/01/0	KURLAPPA LAYOUT				
171	Lat-13.10569116, Long- 77.59431214					
172	Lat- 13.1066101, Long- 77.5942936					
173	KE/01/TC37/KMR/00/01/02/5					
174	Lat- 13.10762999, Long- 77.59084469					
175	KE/02/TC38/CL/00/05/06/0					
176	KE/02/TC38/CL/00/05A01/5					
177	KE/02/TC38/CL/00/05A/02/5					
178	Lat-13.10824909, Long-77.59430215					
179	Lat-13.1087867, Long- 77.5932836					
180	KE/02/TC25/CL/00/05/03/5					
181	KE/02/TC38/CL/00/05B/03/0					
182	KE/02/TC38/CL/00/034/01/5					
183	KE/02/TC37/CL/00/03A/02/5					
184	KE/02/TC38/CL/00/03A/03/9					
185	KE/02/TC38/CL/00/08/03 LED					
186	Lat- 13.11194104, Long-77.5893326					
187	Lat- 13.11163791, Long-77.59203379					
188	KE/02/TC37/KB/06/01/06/5					
2	Supplying and Fixing.....mm dia class A GI pipe bracket up to 2.7 meters long terminated with a reducing collar of 40x25mm to which extra pipe of 175mm length is fixed for fixing MV/SV/MH/FTL street light fitting of all capacities on rail/RCC/wall/tubular pole, using suitable clamps, bolts, nuts and wiring using suitable capacity wires.Using 40mm dia G.I.Pipe		Each	188	1090.80	205070.40
3	Wiring for lighting/power circuit using one of PVC insulated 1100V grade, stranded Aluminium wire single core in open or concealed system of wiring.4 sqmm		Mtrs	585	8.01	4685.85
4	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes.25 sqmm Long Barrel		Nos	30	18.00	540.00
5	Fixing halogen/metal halide / SVL / IL / LED floodlight fitting over existing pole / wall ceiling including clamps, bolts, nuts and wiring using suitable capacity wires.		Each	188.00	157.50	29610.00
6	Supplying heavy gauge PVC conduit pipe .....dia mm thick confirming to IS 2509 with suitable size bends, junction boxes, adhesive paste etc., and fixing using inverted wood plugs in case of RCC ceiling and RCC wall / stone structure or rawl plugs in case of brick walls and cement plastering the damaged portion using heavy gauge saddles at an interval of 700mm using NF screws.25mm dia 2mm thick		Mtrs	41	58.50	2398.50

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7	1.1KV Class HR (Heat Resistant) PVC Insulated & UnSheathed Aluminium Wires Multistrand Single core Lead wires as per IS-694: 2010PVC Wire - 25 Sqmm Al Wt: 6.7 Kgs, Total Wt: 11.5Kgs for 100Mtrs	Mtrs	85	29.08	2472.19
8	Thiristor based single/ Three phase smart street light control and monitoring system Remotely control and and monitorable smart street light system by using web or mobile application .smart control system has hardware ruggedness over field issues like line cross, line short, lighting and any other irregularities in voltage. It has some features like 1.Remote lighting management.2.Precise lighting turnoff.3.Load ballancing.4.Load power regulation.5.Status tracking. It works on the basis of some of these features 1) Main Control Unit (Mother board) : Handles controlling , data handling and other communication process. 2) Communication unit: GSM/GPRS quad bandwith RS232 interface wireless communication unit 3) Gate Driver Unit: Firing angle controllable board for driving the thyristor 4) Switching Thyristor: SCR 110 AMPS dual thyristor modules for switching 5) Embedded Firmware: Firmware to control , handle , process the data and communicate it wirelessly.6) Metal Enclosure : IP66 weather prof metal enclosure.7) Transformers: Customized step down transformers for various purposes.8) Wiring and other device assembly components.	Nos	5	46350.00	231750.00
1	CE/01/TC29/Y/GHR/00/19/0/05				
2	CE/01/TC/Y/BMR/21/16A/245				
3	CE/01/NN/01/00/TC124/05/S				
4	CE/01/TC/RSR/00/06/68				
5	Near MECS School Sugappa layout				
	Total Rs				
	Add GST @ 12% on item No 1 to 7 1801416.94				2033166.94
	Total Rs				216170.03
					2249336.98

CERTIFICATE:

1.This is certify that the work done is saticefactorily.
2.This is certify that the bill amount calimed in this bill Has not claimed in any of the previous bills.

25/4/22

Junior Engineer(Elec)
Yalahanka Division

Asst.Exe.Engineer(Elec)
Yalahanka Division